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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/787,501	03/16/2001	Giles Henry Rodway	RK590-US1	3959

7590

10/04/2002

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EXAMINER

KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 10/04/2002

4

Please find below and/or attached an Office communication concerning this application or proceeding.

77-4

<b>Office Action Summary</b>	<b>Application No.</b> 09/787,501	<b>Applicant(s)</b> RODWAY, GILES HENRY	
	<b>Examiner</b> Kevin R Krueer	<b>Art Unit</b> 1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) 6-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>3</u> . | 6) <input type="checkbox"/> Other:  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 6-20 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 6-20 have not been further treated on the merits.
2. Claims 1 and 2 are objected to because of the following informalities: line 4 of claim 1 states "of which polymer the or at least one constituent monomer..." Such language is idiomatic. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear whether the parenthetical limitations of claims 1-5 are positively recited. Furthermore, it is not clear what the acronym "VDF" stands for.

Claim 1 recites the limitation "the whole material composition" in lines 3 and 12 of the claim. There is insufficient antecedent basis for this limitation in the claim.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent

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protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claims 1 and 2 each recite the broad recitation carboxylic acid ester, and the claim also recites "preferably an acrylate or acetate, especially an alkyl acrylate" which is the narrower statement of the range/limitation. Furthermore, claims 1 and 2 recite the broad recitation "derived from olefinic monomer," and the claim also recites "preferably ethylene" which is the narrower statement of the range/limitation. Claims 1 and 2 recite the broad recitation "the remainder or the majority of the remainder of the co,-or ter-polymer," and the claim also recites "preferably being derived from olefinic monomer" which is the narrower statement of the range/limitation. Similarly, claim 2 recites the broad limitation "at least 20%" in line 1 of the claim and the claim also recites "preferably at least 40%, more preferably 60% or very preferably at least 80%" which is the narrower statement of the range/limitation. Claim 2 further recites the broad limitation "at least 5%" and the claim also recites "preferably at least 9%, more preferably at least 15%" which is the narrower statement of the

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range/limitation. Claim 2 also recites the broad limitation "at least 10%" and the claim also recites "preferably at least 50%, very preferably 90%, especially 100%." In addition, claim 2 recites the broad limitation "partially or fully fluorinated co-monomer," and the claim also recites "most preferably a copolymer of VDF and hexafluoropropylene (HFP).

The claims contain numerous similar errors. Applicant is required to amend the claims to remove all such errors from the claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO97/27260 (herein referred to as "Miyaki") in view of Krause et al (US 5,958,532). Miyaki teaches a fluorinated composition comprising (a) 100 parts by weight of a PVDF resin, (b) 5-100pbw of an acrylic and/or methacrylic polymer having functional groups, and (c) 10-200 pbw of a vinylidene fluoride copolymer (page 4, lines 16+). The acrylic and/or methacrylic polymer comprises acrylic ester copolymers comprising at least 50wt% acrylate and/or methacrylate (page 3, lines 14+). The composition may be utilized to bond fluorinated resins, particularly PVDF and copolymers thereof to metals (page 5, line 20), and finds utility in fields such as electric wire coating (page 5, line 15).

Miyaki does not teach that the interlayer surfaces of the PVDF should be irradiated. However, Krause teaches that the exposure of fluoropolymer substrates to gaseous atmospheres provide sites for potential chemical bonding with other materials by way of secondary interactions such as hydrogen bonding, van der waal's interaction, and others. These interactions achieve a chemical bond between the substrate and a second layer (col 6, lines 47+). Thus, it would have been obvious to one of ordinary skill in the art to irradiate the PVDC layer taught in Miyaki in order to increase adhesion between said layer and the adhesive layer taught in Miyaki.

With regards to the method limitations of claims 2 and 5, the examiner takes the position that the method of making a product does not patentably distinguish said product from a product taught in the prior art unless it can be shown that the method of making the product inherently results in a materially different product. In the present application, no such showing has been made.

With regard to the bond strength limitations of claims 4 and 5, Krause teaches that the amount of bonding is proportional to the amount of functional groups that are inserted into the fluoropolymer substrate during treatment (col 6, lines 48+). Thus, it would have been obvious to one of ordinary skill in the art to vary the amount of functional groups that are inserted into the fluoropolymer substrate in order to control the adhesive strength of the resulting substrate to the adhesive taught in Miyaki.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R Kruer whose telephone number is 703-305-

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0025. The examiner can normally be reached on Monday-Friday from 7:00a.m. to 4:00p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau, can be reached on (703) 308-2367. The fax phone number for the organization where this application or proceeding is assigned is 703-305-5408.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*KRK*

KRK

*Paul Thibodeau*  
Paul Thibodeau  
Supervisory Patent Examiner  
Technology Center 1700